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AUTHOR Wiley, Patricia Davis
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ABSTRACT

This paper reports on the results of a research project that focused on the relationship between (1) high school foreign language study and college cumulative grade point average (GPA), and (2) high school foreign language study and college freshman English cumulative GPA in a random sample of Tennessee public college graduates in 1987-88. The following variables were examined: the number of high school foreign language units matriculated, cumulative high school and college GPAs, American College Testing Program (ACT) composite and English raw scores, and college freshman English GPAs. Analysis of the results shows that the mean cumulative GPAs of students taking a high school foreign language were higher than those of students who did not take high school foreign language but were as academically talented as students who did. The mean freshman English GPAs of those students who studied a foreign language in high school were similarly higher than those of students who did not study a foreign language but were as academically talented. These results were found to be statistically significant. It is concluded that students who study Latin, French, Spanish, and German in high school may be expected to perform better in college than students of equal ability without high school language study. (MSE)

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The Impact of High School Foreign Language Study on Academic Success in College: a 1989 Research Update

Patricia Davis Wiley
Associate Professor, C&I
The University of Tennessee, Knoxville

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Paper presented at the annual meeting of the Mid-South Education Research Association, Little Rock, Arkansas
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The Impact of High School Language Study on Academic Success in College: a 1989 Research Update

Patricia Davis Wiley
The University of Tennessee, Knoxville

There is little doubt that foreign language learning has identifiable educational values (Eddy, 1981; Lipton, 1988; Potts, 1967; Rhodes, 1988; Skelton, 1957; Wiley, 1984-85). The efficacy of foreign language study and its positive correlation with standardized test scores has been reported (LaFleur, 1981, 1982; Sheils, 1977; Wiley, 1988), and cannot be ignored. In addition, possible side effects of second language learning include improved critical-thinking ability (Donoghue, 1965); better mental discipline (Brega, 1967); and, more developed levels of flexibility and creativity (Jarvis, 1980).

At this writing, approximately one-fifth (22%) of our nation's elementary schools and 87% of the secondary schools (Rhodes & Oxford, 1988), teach a foreign language. Due to new four-year college/university entrance requirements (requiring two high school language units), and to the recommendations of national commissions (i.e., National Commission on Excellence in Education, 1983; President's Commission, 1979; Educational EQ Project, 1983), second language enrollments in many states have more than doubled in the past few years on the secondary level, and have had, in many states, a positive impact on a resurgence of foreign language instruction in the elementary school (FLES).

This paper will report the results of an empirical research study examining the impact of high school foreign language instruction on a propensity for later academic success in college.

Objectives

The following questions were investigated in this study:

1. Is there a positive relationship between high school foreign language study and college cumulative grade point average (GPA)?

2. Is there a positive relationship between high school foreign language study and college freshman English cumulative GPA?

The variables studied were: the number of high school foreign language units matriculated: the cumulative high school and college GPA's; ACT Composite and ACT English raw scores; and, college freshman English GPA's.

Method

Subjects

In the summer and early fall of 1988, the Admissions and Records offices at each of the nine public post-secondary institutions in Tennessee, were asked by the researcher to identify their non-transfer 1987-88 graduates who had earned a baccalaureate degree. (Non-transfer students were selected in order to insure a cumulative grade point average at the same institution). From

computer listings of students, a randomly-selected, 5 to 14 percent sample from each institution was drawn from the total potential population.

Table 1

Research Subjects

	F	M	Total N
Language	337	157	494
No-Language	149	155	304
Total	486	312	798

Table 2

Language Studied By Research Participants

Languages	Gender N		Total N
	F	M	
Spanish	145	80	225
French	138	51	189
Latin	72	26	98
German	16	9	25
Total	371	166	537

This paper will report data retrieved from 8 of the 9 (N=798) institutions. (Data retrieved from the ninth institution did not include all the desired variables and will be analyzed and reported in a subsequent study.)

Procedure

Since none of the institutions involved in the study had all the required data accessible by computer, the researcher had to visit each of the nine campuses, and randomly select the sample from a list of 1987-88 graduates. Some institutions

provided a partial computer-produced list of desired data, whereas, others did not have this capability. In most cases, hand retrieval and recording of all data from high school and college transcripts were necessary. The data were hand-recorded on one-page formatted sheets. The most tedious task was identifying information from individual student records. (Each post-secondary institution has a different record-keeping system for high school and college transcripts. In addition, each school district in Tennessee has a different high school transcript format.) In all cases, if any of the variables desired were not available (i.e., four-year high school cumulative GPA or ACT scores), the individual cases were deleted from the study. Due to its time-consuming nature for retrieval and the researcher's available time outside of faculty duties, data collection took place over 17 months, during academic breaks, (from June 1988 through October 1989).

Analysis

The raw data were hand-coded on data entry sheets and entered into The University of Tennessee, Knoxville's computer. Analysis procedures, using the Statistical Analysis System (SAS), included frequency distribution, Chi-square analyses, correlation analyses, and analysis of variance. Following frequency distribution of high school GPA's and ACT Composite raw scores, homogeneous groups of individuals were identified and controlled for the variables mentioned above. The .01 level was used to determine statistical significance.

Results

Data analysis described above are reported in Tables 3-8 at the end of this paper, and resulted in the following: the mean cumulative college GPA's of those who took high school language (controlled for high school cumulative GPA and ACT composite raw scores), were respectively, 3.02 and 3.01. Mean cumulative GPA's of those who did not take a high school foreign language, but who were as academically talented as those who did take a language (based on high school cumulative GPA's and ACT composite raw scores), were respectively, 2.87 and 2.90. The mean freshman college English GPA's of the subjects who had taken a high school foreign language, controlled for high school cumulative GPA and ACT composite raw scores), were respectively, 2.98 and 2.96. The mean freshman college English GPA's of those who did not take a high school foreign language, but who were, as defined by this study, just as academically talented, were 2.70 (controlled for high school GPA), and 2.73 (controlled for ACT composite raw scores).

The differences between high school language and no high school language groups were statistically significant ($p < .0001$) when a Chi-square test was conducted.

Importance of the Study

In an effort to strengthen the rationale for the mandatory high school foreign language requirement for entrance into post-secondary institutions, the researcher conducted a massive study (in 1983-84), investigating the importance of high school foreign language study on academic success in college. The 1989 research study, a replication of the 1983-84 study, was undertaken at the request of The University of Tennessee to not only track those students who had to fulfill

the new 1989 university entrance requirement, but also to investigate the continued impact of high school foreign language on later academic success.

Based on the statistically significant results of this study, it may be concluded (albeit guardedly), that indeed those students who study Latin, French, Spanish and German in high school, may be expected to perform better academically in college that those high school students of equal academic ability (as measured by similar high school cumulative GPA's and ACT composite scores), who did not take a foreign language in high school.

Table 3

College Cumulative GPA

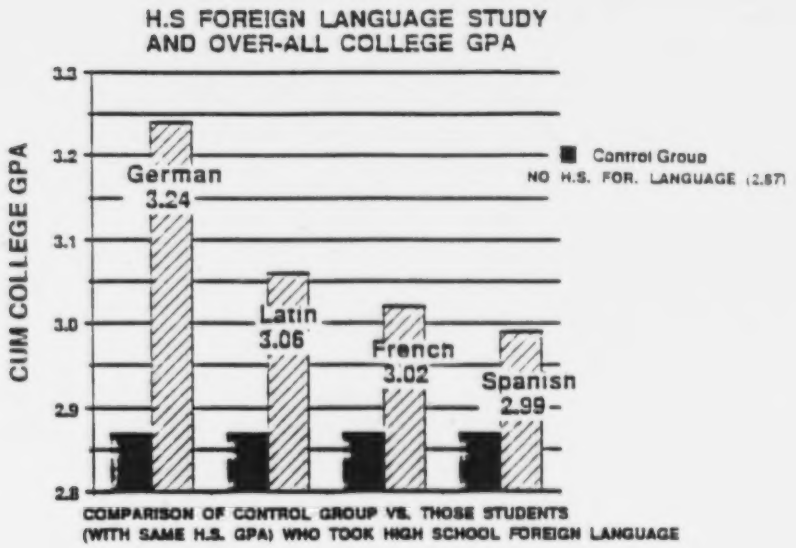
	Controlled for ACT-C	Controlled for H.S. GPA
Language	3.01	3.02
No-Language	2.90 ($p < .0005$)	2.87 ($p < .0001$)

Table 4

College English GPA

	Controlled for ACT-C	Controlled for H.S. GPA
Language	2.96	2.98
No-Language	2.73 ($p < .0001$)	2.70 ($p < .0001$)

Table 5



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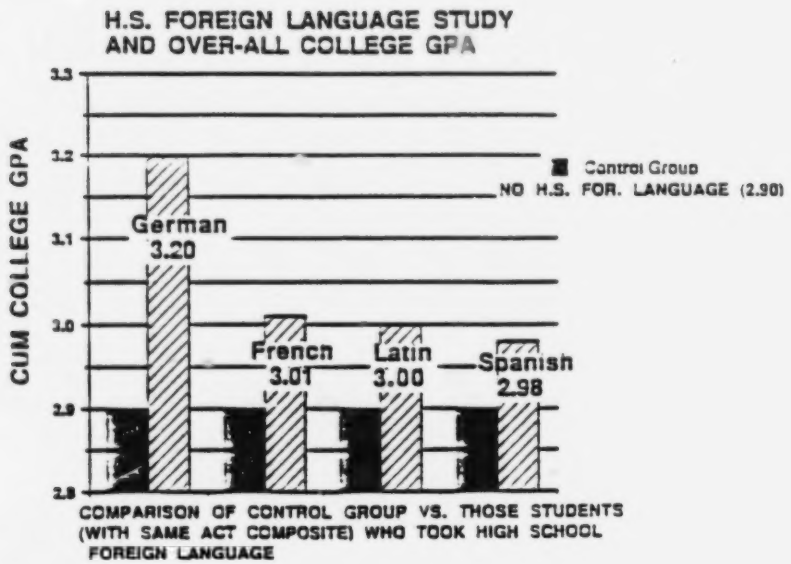

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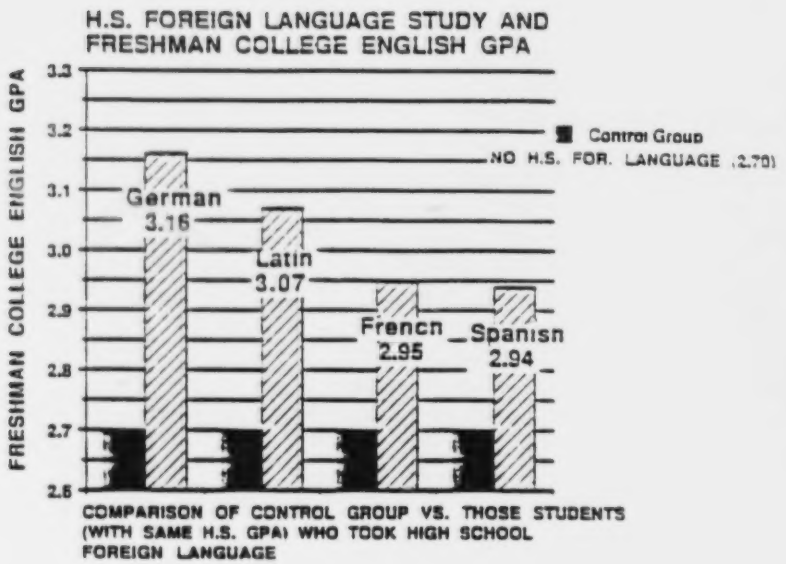

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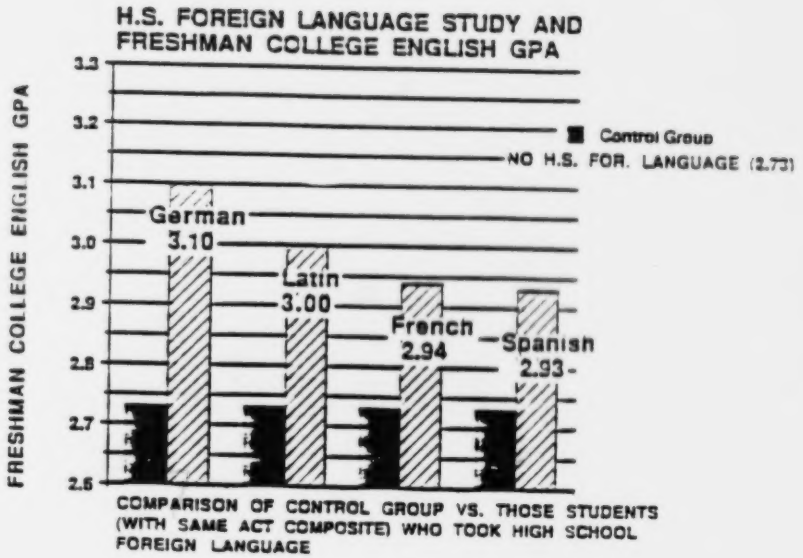

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